

FIGURE 1

AGGCCGTGCC	TATCCAGAAA	GTCCAGGATG	ACACCAAAAC	CCTCATCAAG	ACAATTGTCA
V P	I Q K	V Q D	D T K T	L I K	T I V
CCAGGATCAA	TGACATCTCA	CACACGCAGT	CCGTCTCCTC	CAAACAGAGG	GTCACTGGTT
T R I N	D I S	H T Q	S V S S	K Q R	V T G
TGGACTTCAT	CCCTGGGCTC	CACCCTCTCC	TGAGTTTGTC	CAAGATGGAC	CAGACATTGG
L D F I	P G L	H P L	L S L S	K M D	Q T L
CGATCTACCA	ACAGATCCTC	ACCAGTCTGC	CTTCCAGAAA	TGTGGTCCAA	ATATCCAATG
A I Y Q	Q I L	T S L	P S R N	V V Q	I S N
ACCTGGAGAA	CCTCCGGGAC	CTTCTCCACC	TGCTGGCCGC	CTCCAAGAGC	TGCCCCTTGC
D L E N	L R D	L L H	L L A A	S K S	C P L
CGCAGGTCAG	GGCCCTGGAG	AGCTTGGAGA	GCTTGGGTGT	CGTCCTGGAA	GCCTCCCTCT
P Q V R	A L E	S L E	S L G V	V L E	A S L
ACTCCACCGA	GGTGGTGGCC	CTGAGCCGGC	TGCAGGGGTC	ACTACAGGAC	ATGTTGCGGC
Y S E E	V V A	L S R	L Q G S	L Q D	M L R
AGCTGGACCT	CAGCCCTGAA	TGCAGCGCT			
Q L D L	S P E	C			

FIGURE 2A

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Query:      1 AGGCCGTGCCTATCCAGAAAGTCCAGGATGACACCAAACCCTCATCAAGACAATTGTCA 60
            | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Sbjct:     59 AAGCTGTGCCCATCCAAAAAGTCCAAGATGACACCAAACCCTCATCAAGACAATTGTCA 118
            | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Query:     61 CCAGGATCAATGACATCTCACACACGCAGTCCGTCTCCTCCAAACAGAGGGTCACTGGTT 120
            | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Sbjct:    119 CCAGGATCAATGACATTTACACACGCAGTCAGTCTCCTCCAAACAGAAAGTCACCGGTT 178
            | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Query:    121 TGGACTTCATCCCTGGGCTCCACCCTCTCCTGAGTTTGTCCAAGATGGACCAGACATTGG 180
            | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Sbjct:    179 TGGACTTCATTCTGGGCTCCACCCATCCTGACCTTATCCAAGATGGACCAGACACTGG 238
            | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Query:    181 CGATCTACCAACAGATCCTCACCAGTCTGCCTTCCAGAAATGTGGTCCAAATATCCAATG 240
            | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Sbjct:    239 CAGTCTACCAACAGATCCTCACCAGTATGCCTTCCAGAAACGTGATCCAAATATCCAACG 298
            | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Query:    241 ACCTGGAGAACCTCCGGGACCTTCTCCACCTGCTGGCCGCCTCCAAGAGCTGCCCCCTTGC 300
            | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Sbjct:    299 ACCTGGAGAACCTCCGGGATCTTCTTCACGTGCTGGCCTTCTCTAAGAGCTGCCACTTGC 358
            | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Query:    301 CGCAGGTCAGGGCCCTGGAGAGCTTGGAGAGCTTGGGTGTCGTCCTGGAAGCCTCCCTCT 360
            | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Sbjct:    359 CCTGGGCCAGTGGCCTGGAGACCTTGGACAGCCTGGGGGGTGTCTGGAAGCTTCAGGCT 418
            | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Query:    361 ACTCCACCGAGGTGGTGGCCCTGAGCCGGCTGCAGGGGTCACTACAGGACATGTTGCGGC 420
            | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Sbjct:    419 ACTCCACAGAGGTGGTGGCCCTGAGCAGGCTGCAGGGGTCTCTGCAGGACATGCTGTGGC 478
            | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Query:    421 AGCTGGACCTCAGCCCTGAATGCAG 445
            | | | | | | | | | | | | | | | | | |
Sbjct:    479 AGCTGGACCTCAGCCCTGGGTGCTG 503
            | | | | | | | | | | | | | | | | | |

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Query = bovine leptin cDNA  
Sbjct = human leptin cDNA

FIGURE 2B

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Query:      1 AGGCCGTGCCTATCCAGAAAGTCCAGGATGACACCAAAACCCTCATCAAGACAATTGTCA 60
            | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Sbjct:     59 AAGCAGTGCCTATCCAGAAAGTCCAGGATGACACCAAAACCCTCATCAAGACCATTGTCA 118

Query:     61 CCAGGATCAATGACATCTCACACACG 86
            | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Sbjct:    119 CCAGGATCAATGACATTTACACACACG 144

Query:     87 CAGTCCGTCTCCTCCAAACAGAGGGTCACTGGTTTGGACTTCATCCCTGGGCTCCACCCT 146
            | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Sbjct:   1876 CAGTCGGTATCCGCCAAGCAGAGGGTCACTGGCTTGGACTTCATTCTGGGCTTCACCCC 1935

Query:    147 CTCCTGAGTTTGTCCAAGATGGACCAGACATTGGCGATCTACCAACAGATCCTCACCAGT 206
            | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Sbjct:   1936 ATTCTGAGTTTGTCCAAGATGGACCAGACTCTGGCAGTCTATCAACAGGTCCTCACCAGC 1995

Query:    207 CTGCCTTCCAGAAATGTGGTCCAAATATCCAATGACCTGGAGAACCTCCGGGACCTTCTC 266
            | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Sbjct:   1996 CTGCCTTCCCAAATGTGCTGCAGATAGCCAATGACCTGGAGAATCTCCGAGACCTCCTC 2055

Query:    267 CACCTGCTGGCCGCTTCCAAGAGCTGCCCCTTGCCGCAGGTCAGGGCCCTGGAGAGCTTG 326
            | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Sbjct:   2056 CATCTGCTGGCCTTCTCCAAGAGCTGCTCCCTGCCTCAGACCAGTGGCCTGCAGAAGCCA 2115

Query:    327 GAGAGCTTGGGTGTCGTCCTGGAAGCCTCCCTCTACTCCACCGAGGTGGTGGCCCTGAGC 386
            | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Sbjct:   2116 GAGAGCCTGGATGGCGTCCTGGAAGCCTCACTCTACTCCACAGAGGTGGTGGCTTTGAGC 2175

Query:    387 CGGCTGCAGGGGTCCTACAGGACATGTTGCGGCAGCTGGACCTCAGCCCTGAATGCAG 445
            | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Sbjct:   2176 AGGCTGCAGGGCTCTCTGCAGGACATTCTTCAACAGTTGGATGTTAGCCCTGAATGCTG 2234

```

Query = bovine leptin cDNA  
Sbjct = murine leptin cDNA

FIGURE 3A

				10	20	30	—39
Clconl				VPIQKVQDDTKTLIKTIVTRINDISHTQSVSSKQRTGL			
Ob_Hum	MHWGTL	CGFLWL	WPYLFY	VQAVPIQKVQDDTKTLIKTIVTRINDISHTQSVSSKQKVTGL			
	10	20	30	40	50	60	
	40	50	60	70	80	90	99
Clconl	DFIPGLHPLL	SLSKMDQTL	AIYQQILTS	LP SRNVQIS	NDLENLRD	LLHLLAASK	SCPLP
Ob_Hum	DFIPGLHPIL	TL SKMDQTL	AVYQQILTS	MP SRNVIQIS	NDLENLRD	LLHVLAFSK	SCHLP
	70	80	90	100	110	120	
	100	110	120	130	140		
Clconl	QVRALESLE	SLGVLEAS	LYSTEVV	ALSRLQGS	LQDMLRQ	LDLSPEC	
	:::	:::	:::	:::	:::	:::	:::
Ob_Hum	WASGLETLD	SLGGVLEA	SGYSTEVV	ALSRLQGS	LQDMLWQ	LDLSPGC	
	130	140	150	160			

Clconl = predicted bovine leptin amino acid sequence  
Ob Hum = human leptin amino acid sequence

FIGURE 3B

				10	20	30	39
Clconl				VPIQKVQDDTKTLIKTIVTRINDISHTQSVSSKQRTGL			
Ob_Mou	MCWRPLCRFLWLWSYLSYVQAVPIQKVQDDTKTLIKTIVTRINDISHTQSVSAKQRTGL						
	10	20	30	40	50	60	
	40	50	60	70	80	90	99
Clconl	DFIPGLHPLLSLSKMDQTLAIYQQILTSLPSRNVVQISNDLENLRDLLHLLAASKSCPLP						
Ob_Mou	DFIPGLHPILSLSKMDQTLAVYQQVLTSLPSQNVLQIANDLENLRDLLHLLAFSKSCSLP						
	70	80	90	100	110	120	
	100	110	120	130	140		
Clconl	QVRALESLES LGVVLEASLYSTEVALSRLOGSLQDMLRQLDLSPEC						
Ob_Mou	QTSGLOKPESLDGVLEASLYSTEVALSRLOGSLQDILQQLDVSPEC						
	130	140	150	160			

Clconl = predicted bovine leptin amino acid sequence  
Ob Mou = murine leptin amino acid sequence

## FIGURE 4

1 VPIQKVQDDTKTLIKTIVTRINDISHTQSV 30

## FIGURE 5A

Query: 1 VPIQKVQDDTKTLIKTIVTRINDISHTQSV 30

Sbjct: 22 VPIQKVQDDTKTLIKTIVTRINDISHTQSV 51

Query = actual bovine leptin amino acid sequence  
Sbjct = human leptin amino acid sequence

Sbjct = human leptin amino acid sequence

FIGURE 5B

Query: 1 VPIQKVQDDTKTЛИKTIVTRINDISHTQSV 30

Sbjct: 22 VPIQKVQDDTKTЛИKTIVTRINDISHTQSV 51

Query = actual bovine leptin amino acid sequence  
Sbjct = murine leptin amino acid sequence

Query: 1 VPIQKVQDDTKTЛИKTIVTRINDISHTQSV 30  
Sbjct: 22 VPIQKVQDDTKTЛИKTIVTRINDISHTQSV 51



FIG. 6

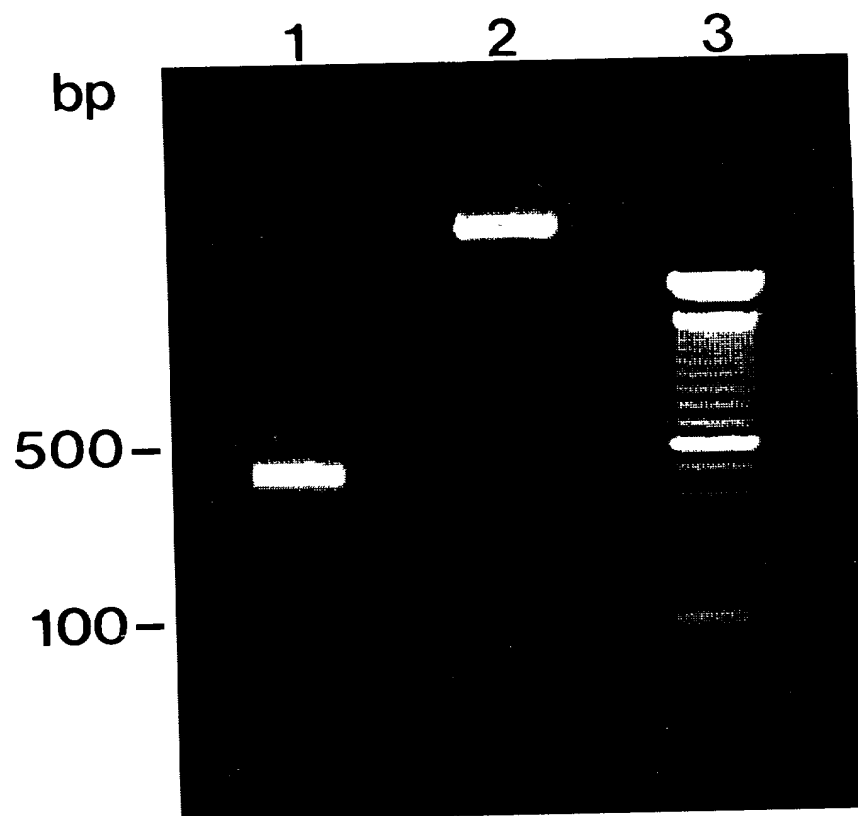


FIG. 7

1 2 3 4 5

28s-

18s-



FIG. 8

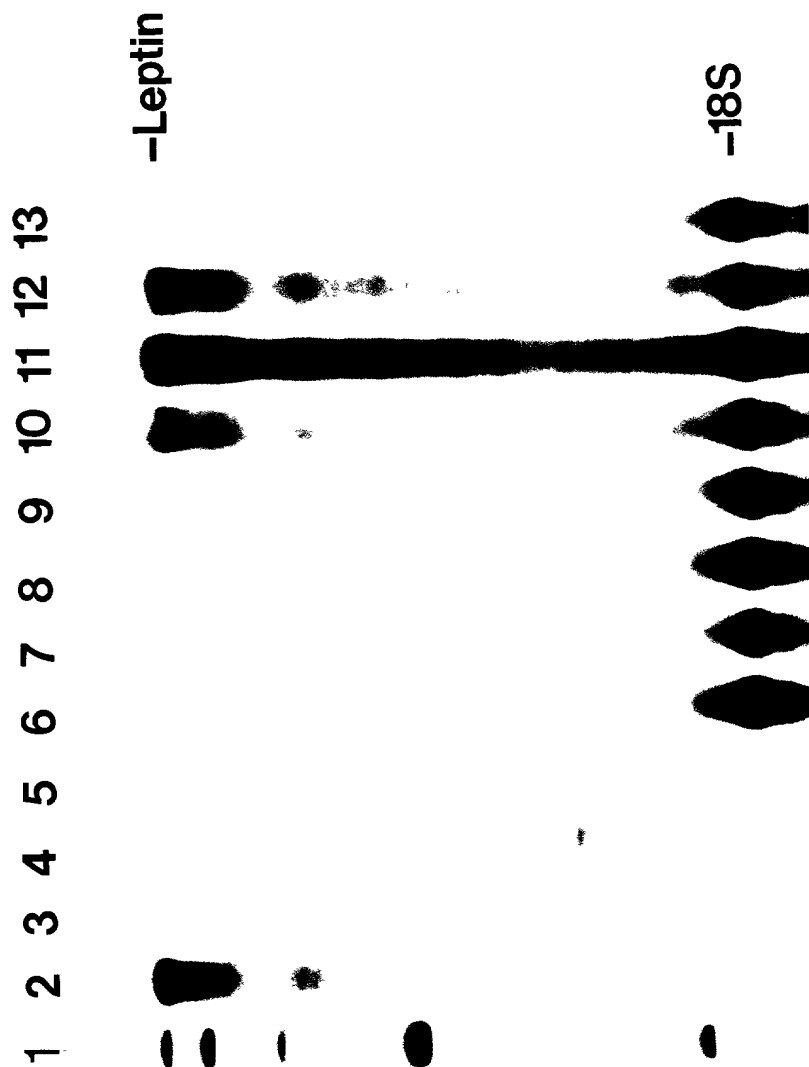


FIG. 9

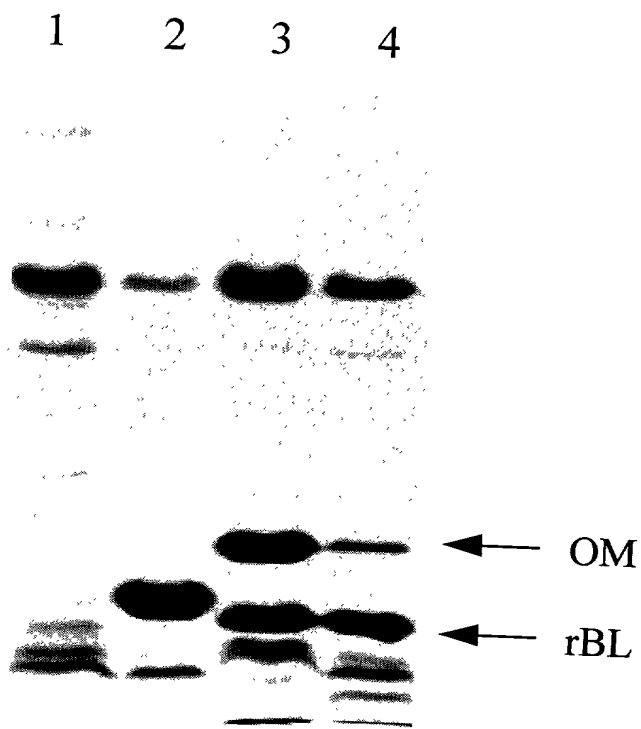


FIG. 10

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FIG. 11A

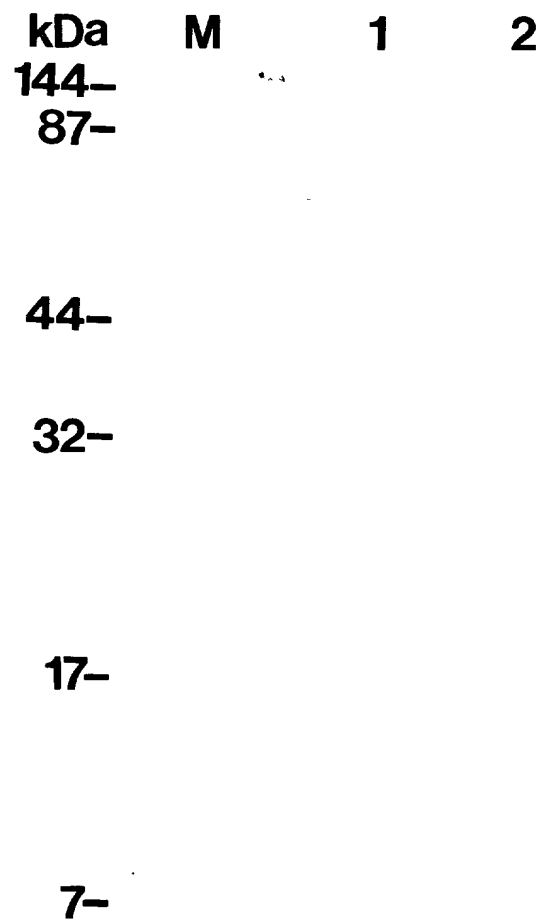


FIG. 11B

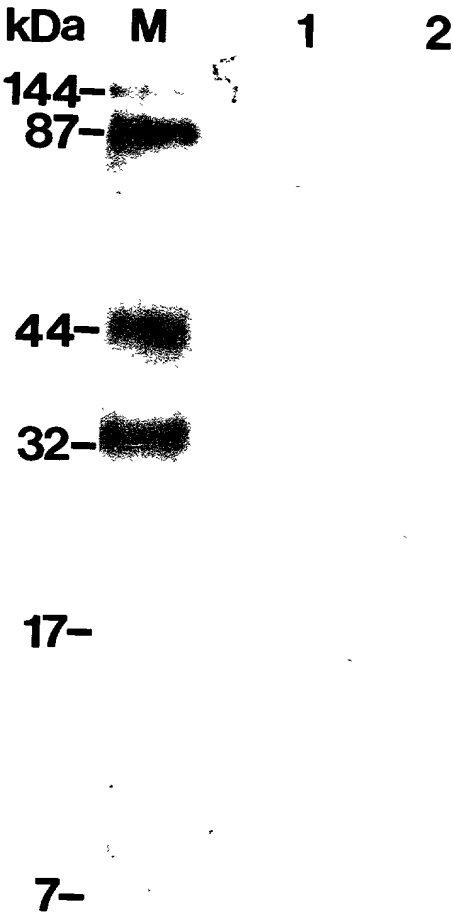


FIG. 12A

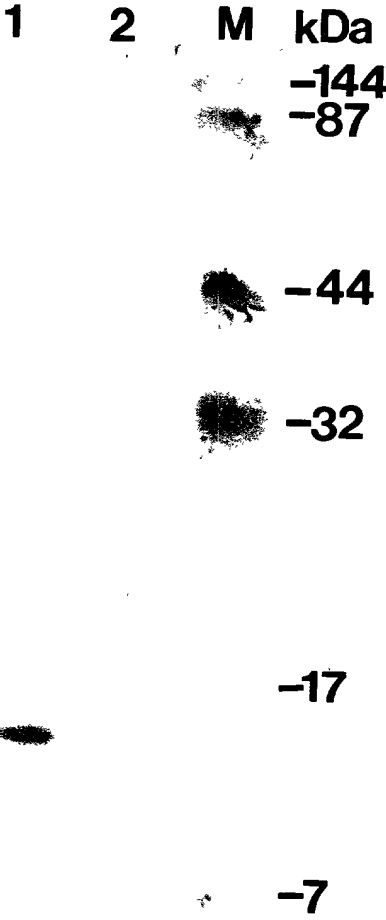




FIG. 12B

